Remarks

This Response is provided in conjunction with a Request for Continued Examination (RCE). A final Office Action mailed July 12, 2005 finally rejected claims 1, 2, 4, 5, 8-13, 15, 17 and 25-42. The Applicant respectfully requests consideration of this Response, including amendments which have been provided above to the specification and claims.

The title of the application has been amended to better conform to the claimed subject matter. The claim amendments include minor amendments to the language of claims 1, 2, 4, 5, 8-11, 13, 17, 25 and 32, and the cancellation without prejudice of claim 15.

Independent claim 1 has now been amended to generally feature a method comprising "imaging a characteristic size of a defective region of a data storage medium by combining a plurality of data readback signals received from different locations surrounding the defective region." Support for these amendments includes the original language of claim 1, specification at page 8, lines 9-12 and lines 21-23, page 9, lines 6-10 and FIGS. 3, 4 and 5 (see in particular the boundary detection of blocks 529 and 549 in FIG. 5). Independent claims 25 and 32 have been similarly amended. The remaining dependent claims have been amended to better conform to the amended independent claims.

These amendments are proper, do not introduce new matter or raise new issues requiring additional searching or consideration beyond what was previously presented, and serve to better set forth the subject matter regarded as the invention by the Applicant. Entry of these post-final amendments is therefore respectfully solicited.

Rejection of Claims Under 35 U.S.C. §103(a)

All pending claims 1, 2, 4, 8-13, 15, 17, 25-36 and 38-42 were finally rejected under 35 U.S.C. §103(a) as being obvious over U.S. Patent No. 6,384,995 issued to Smith ("Smith '995") in view of U.S. Patent No. 5,527,110 issued to Abraham et al. ("Abraham '110"). This rejection is respectfully traversed.

With regard to the previously presented language of claim 1, the Examiner stated that Smith '995 teaches "combining a plurality of readback signals each received during a respective pass of the transducer head adjacent the defective region." (final Office Action, page 2, lines 14-16, citing to FIG. 8, elements 804-807 of Smith '995). The Applicant respectfully submits that this is an incorrect characterization of the teachings of this reference.

Rather, Smith '995 teaches to combine different harmonic components (first and third) of a readback signal obtained during the same pass of the transducer head. The analysis of steps 806 and 807 of FIG. 8 occur on the same track and during the same pass and, if a defect is located, further analysis is carried out on the samples previously obtained during that pass of the head. See e.g., Col. 9, lines 41-43 and 52-55.

Thus, Smith fails to combine readback signals obtained during respective passes of the head and instead uses samples during a single pass. Abraham '110 fails to make up for this deficiency of Smith '995. It follows, then, that the final rejection of claim 1 was improper. The same conclusion applies to the final rejection of independent claims 25 and 32.

Nevertheless, the Applicant has elected to clarify the claimed subject matter so that claim 1 now generally features "imaging a characteristic size of a defective region of a data storage medium by combining a plurality of data readback signals received from different locations surrounding the defective region." The term "surrounding" is

provided in substitution for the previously provided "each received during a respective pass" language, is readily exemplified by FIGS. 3 and 4 of the present application, and allows the cross-cell (e.g., inter-track) boundaries of a defect in a storage medium to be readily determined, something that is not carried out by the single pass evaluation methods taught by Smith '995 and Abraham '110.

Thus, even if adjacent tracks spanning a single large defect on a rotatable storage medium were individually evaluated by the system of Smith '995, alone or in combination with Abraham '110, one skilled in the art would still not be motivated to combine a plurality of data readback signals received from different locations surrounding the defective region, as claimed. Rather, the results of each individual pass would merely be separately evaluated as before.

Accordingly, reconsideration and withdrawal of the rejection of claims 1, as well as for the claims depending therefrom, are respectfully requested.

As Smith '995 and Abraham '110 are similarly deficient with regard to the subject matter of independent claims 25 and 32, reconsideration and withdrawal of the rejections of these claims, and for the claims depending therefrom, are also respectfully requested.

Conclusion

This is intended to be a complete response to the final Office Action mailed July 12, 2005. The Applicant respectfully requests that the Examiner enter the above amendments, reconsider the application and allow all of the pending claims.

The Examiner is invited to contact the below signed Attorney should any questions arise concerning this response.

Respectfully submitted,

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